Listing of Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application. Applicant respectfully asserts that the claims below accurately reflect the current status of the claims as hereby amended. To the extent that a claim presented below differs, without indication of amendment, from that previously on record, such difference is unintentional and was made without deceptive intent. Accordingly, this paper should suffice as amendment to bring the prior claims into the condition set forth below.

F1

1. (Previously amended, allowed) A computer-based method for facilitating the selection of chemical compounds, comprising:

receiving an identification of a target compound and a neighborhood range from a user;

performing a chemical similarity join to identify compounds of interest within said neighborhood range of said target compound, said chemical similarity join being performed on:

a first database table that stores information about one or more compounds including said target compound; and

a second database table that stores information about a plurality of compounds,

wherein said chemical similarity join combines a compound from said first database table with a compound from said second database table and the compound from the second database table is within said neighborhood range; and

providing results of said chemical similarity join to the user.

2-9 (Canceled)

10. (Currently amended) A computer-based method for retrieving information that is based upon at least one similarity among entities in a plurality of database tables, the method comprising:

identifying a target item, wherein a first of the plurality of database tables includes ~~a row that identifies~~ the target item;

using a computer to perform a fuzzy similarity join on the first database table and a second database table to ~~correlate~~ associate rows of the first and second database tables that have ~~similar properties~~items similar to said target item; and retrieving ~~at least one item~~said associated rows from the result of the join, wherein ~~the~~ each retrieved ~~item~~ row comprises at least one item ~~having a property~~ similar to ~~a property of~~ the target item.

11. (Currently amended) A method according to claim 10 wherein the fuzzy similarity join is a chemical similarity join, and the target item ~~and identified item are~~is a chemical ~~compounds~~compound.

12. (Currently amended) A method according to claim 10 ~~wherein a user of the computer is informed~~further comprising the step of informing the user of the identification of one or more ~~identified items~~ retrieved rows that comprise ~~a property~~an item similar to ~~the property of~~ the target item.

13. (Currently amended) A method according to claim 11 wherein the ~~property~~ target item comprises a chemical structure ~~of the target item~~.

14. (Currently amended) A method according to claim 10 wherein a plurality of ~~properties of the~~ target ~~item~~ items are identified.

15. (Currently amended) A method according to claim 11 wherein a plurality of ~~properties of the~~ target ~~item~~ items are identified.

16. (Currently amended.) A method according to claim 15 wherein one or more ~~properties~~ of the plurality of ~~properties~~ target items is selected from one or more attributes (columns) selected from the group consisting of chemical structure, synthesis pathway, binding data, biological activity, structure-activity relationship information, molecular weight, partition coefficient, electric charge, size, efficacy, toxicology, manufacturer, price, and availability.

17. (Currently amended) A method according to claim 12 wherein the user is informed of the identification via a remote communication link.

18. (Previously added) A method according to claim 17 wherein the remote communication link is the Internet.

19. (Currently amended) A method according to claim 11 further comprising the step of eliminating ~~test items~~one or more rows from at least one of the first and second database tables by selection of user-defined criteria for non-desired items.

20. (Previously added) A method according to claim 10 wherein the target item is a biological compound.

21. (Previously added) A method according to claim 20 wherein the biological compound is a protein.

22. (Previously amended) A method according to claim 20 wherein the target item is a gene.

23. (Currently amended) A computer-based method for identifying, from a ~~first~~ database table comprising chemical compounds, at least one chemical compound having at least one property similar to a target property of a target chemical compound, the method comprising:

identifying a target property of a target chemical compound in a first database; and

using a computer to perform a chemical similarity join on the first database table and a second database table that includes ~~the target compound~~ additional chemical compounds to identify at least one chemical compound in the ~~first~~ second database table that has a property similar to the identified target property of the target chemical compound.

24. (Currently amended) A method according to claim 23 wherein a user is informed of the identification of at least one chemical compound in the ~~first~~ second database table that has a property similar to the identified target property of the target chemical compound.

25. (Currently amended) A method according to claim 23 wherein the identified target property of the target chemical compound comprises the chemical structure of the target chemical compound.

26. (Currently amended) A method according to claim 23 wherein a plurality of target properties of the target chemical compound are identified.

27. (Currently amended) A method according to claim 23 wherein the identified target property is a neighborhood effect.

28. (Previously added) A method according to claim 27 wherein the neighborhood effect comprises a range of values of property metrics for the target chemical compound.

29. (Previously amended) A method according to claim 23 wherein the similarity between the ~~properties~~ identified target property of the target chemical compound and an ~~correlating~~associated property of a chemical compound in the ~~first~~ second database table is ~~determined used~~established by calculating and evaluating at least one parameter from the group consisting of a Tanimoto coefficient and a Molecular hologram.

30. (Currently amended) A method according to claim 24 wherein the user is informed of said identification via a remote communication link.

31. (Previously added) A method according to claim 30 wherein the remote communication link is the Internet.

32. (~~Previously~~ Currently amended) A method according to claim 23 further comprising the step of excluding at least one chemical compound in the ~~first~~ second database table from the chemical similarity join by selecting user-defined exclusion criteria for ~~non-desirably~~non-desirable compound features.

33. (~~Previously added~~Currently amended) A method according to claim 23 wherein the ~~chemical~~ identified target property is selected from the one or more attributes (columns) selected from the group consisting of chemical structure, synthesis pathway, binding data, biological activity, structure-activity relationship information, molecular weight, partition coefficient, electric charge, size, efficacy, toxicology, manufacturer, price, and availability.

34-36. (Canceled)

37-45. (Withdrawn)